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Tests/Evaluation Instruments (160)

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*The Research Instruments Project

IDENTIFIERS

ABSTRACT

Designed to analyze systematically the relative effects of different types of oral reading errors on comprehension, this instrument consists of a basic set (each with an easy and a hard version) of six stories. Every story is transformed so that it contains simulated errors of a particular type: (1) correct, (2) . semantically related visually unrelated, (3) semantically unrelated visually related, (4) semantically and visually unrelated, (5) no response, and (6) mixed simulate type. After reading each story, subjects answer six cloze-type questions and two additional questions designed to test inferential comprehension. (This document is one of those reviewed in The Research Instruments Project (TRIP) monograph "Measures for Research and Evaluation in the English Language Arts, ' Volume 2," published by the Committee on Research of the National ... Council of Teachers of English in cooperation with the ERIC. Clearinghouse on Reading and Communication Skills. The TRIP review, included here as an introduction to the instrument, describes the instrument's category (reading), title, author, date, age range (primary, upper elementary), purpose, and physical characteristics.)

******************** Reproductions supplied by EDRS are the best that can be made from the original document! ********************* The measurement instruments contained in this document have been reviewed in a monograph (cited below) edited by William T. Fagan, Charles Cooper, and Julie Jensen, for The Research Instruments Project (TRIP), and funded by a grant from the Trustees of the NCTE Research Foundation:

Measures for Research and Evaluation

English Language Arts

.Volume II

The purpose of the editors has been to select and review measurement instruments pertaining to all aspects of research and evaluation in the English language arts, e.g. language and language development, literacy, literature, reading (including comprehension, teacher-pupil interaction, etc.) writing, and teacher knowledge and attitudes. In order to make some of the actual instruments reviewed more readily available, the ERIC Clearinghouse on Reading and Communication Skills (ERIC/RCS) has cooperated with the editors by processing selected instruments into the ERIC system (see the 42 documents assigned Clearinghouse accession numbers CS 207 904-945).

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Category: Reading

Title:

An Assessment of the Effects of Different Error Types on Understanding of Connected Discourse

Author:

· Ki

Tofh Nicholson

Age Range:

Primary, upper elementary

Description of the Instrument:

Purpose: To analyse systematically the relative effects of different types of oral reading errors on comprehension.

Date of Construction: 1937

Physical Description: This instrument was considered unique in that it allows for investigating the effects on comprehension of five factors frequently reviewed in the literature: error type (here referred to as "simulate type") set strength, passage difficulty, error rate, and accede to The instrument consisted of a basic set Leach with an easy and hard version) of six stories. Every story was transformed so that it contained simulated errors of a particular type: *correct (CORR), semantically related visually unrelated (SRVU) semantically unrelated visually related (SUVR), semantically and visually unrelated (SUVU), no response (NONE), and the mixed simulate type version (MIX). There was a high rate condition in which 15 of the nouns were replaced by different simulate types, whereas 6 were so replaced in the low rate condition. In each story, set strength was established by repeating all nominals with comprehension probes, in their correct form at least once. The high set strength condition was established by first repeating the target word in its correct form later in the passage, and then using the correct form a second time as part of a title for the story. Thus the reader was given two appropriate cues to the real meaning of the initial simulate. In the low set/strength condition, the nominals being tested were only repeated once in the passage in their correct form. After reading each story, the subjects answered six cloze-type questions (with deleted target constituents), and two additional questions designed to test. inferential Comprehension Examples are given below of an original story, easy in difficulty, in high set strength condition, and semantically related visually unrelated (SRVU) and semantically unrelated visually related (SUVR) versions.

The newspaper, the home, and the money

One day Russell and his friend Timothy were playing after school. Finally they decided to go home. They walked along the edge of a high wall. Then they jumped over a fence. Then they started walking backwards. Because he couldn't see where he was going, Russell bumped into Mr. Zinder's newsstand. He knocked his money box off the counter. The money rolled all over the road. Mr. Zinder started yelling. He was waving a newspaper wildly in the air. The boys ran off, jumped a nearby fence, and went home. Now both boys avoid buying a newspaper from Mr. Zinder's newsstand.

The newspaper, the home and the money

One time, Russell and his playmate Timothy, were playing after class. Finally they decided to go cabin. They walked along the side of a high ledge. Then they jumped over a barrier. Then they started walking backwards. Because he couldn't see where he was going, Russell bumped into Mr. Zinder's table. He knocked his money case off the table. The coins rolled all over the street. Mr. Finder started yelling. He was waving a magazine wildly in the sky. The students ran off, jumped a nearby fence, and went home. Now both boys avoid having to buy a newspaper from Mr. Zinder's newsstand.

The newspaper, the home and the money

One dam, Russell and his frog Timothy were playing after port. Finally—they decided to go horse. They walked along the egg of a high wave. Then they jumped over a face. Then they started walking backwards. Because he couldn't see where he was going, Russell bumped into Mr. Zinder's nonsense. He knocked his money boot off the cradle. The mountains rolled all over the rope. Mr. Zinder started yelling. He was waving a neighbour wildly in the ant. The books ran off, jumped a nearby fence and went home. Now both boys avoid having to buy a newspaper from Mr. Zinder's newsstand.

Validity, Reliability, and Normative Data:

In order to assess the influence of various factors on comprehension it was decided to experimentally simulate these factors in reading but in a way which is amenable to rigorous statistical analysis. In this design, a number of stories were transformed so as to simulate the reading environment in which the unskilled reader finds him/herself when answering comprehension questions. The transformed stories were then given to proficient readers who tried to read and

and understand the anomalous material. In a sense, the proficient readers were required to complete certain comprehension tasks in an environment similar to that faced by beginning readers.

Certain steps guided the selection of the stories. Each story had to be 100 words in length, with only fifteen nominals for each story. Only narrative type stories, involving a chain of causal events leading to some kind of resolution, were included. Each story was classified as either easy or hard. Then each story went through each rate of simulate substitution: the high rate version (15) and the low rate (6). Then the story was transformed to correspond to each of the simulate types. The classification scheme devised for generating the artificial error types (simulates) was based on the interaction of two factors assumed to be independent: visual features, and semantic characteristics of words. . The interaction can be represented by a 2x2 table, where words can be classified according to their degree of visual and semantic relatedness to the target

Sem*a*ntic Relation

Visual Ŗelation, Related

Unrelated '

Related	Unrelated
house	horse
cottage	apple

Three general constraints and six specific constraints were specified for the selection of each simulate type (Nicholoson,) 60-62). In addition, four constraints were specified (p. 66) for formulating response choices for the inferential questions. Finally, ten levels of semantic appropriateness were defined for classifying responses to the cloze items (81-84), and a five level scale was devised for scoring responses to inference questions (85).

It was assumed that since the categories were highly specific and striktly defined, reliability of classification of responses would be high. In order to strengthen the reliability of the classification system, the analyses were carried out on two levels from more broadly based to specific measures.

Related Documents:

Nichol'son, Tom. The relative effects of different error types on understanding of connected discourse. - Unpublished doctoral dissertation. The University of Minnesote, 1977.

An Assessment of the Effects of Different Error Types on Understanding of Connected Discourse"

APPENDIX A-

Stories and Transformations .

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A Guide to the Stories and Their Transformations

The following summary pages include the original versions of all twelve stories, the simulate types used to replace the underlined nominals, and the comprehension probes used to test understanding. The summary data for the story transformations are provided instead of all 144 transformed stories in order to provide the reader with a concise overview of what was done, as well as sufficient data to completely replicate the story transformations if necessary.

When reading each summary page, the following should be kept in mind:

- 1. The (*) asterisk indicates those simulate types used in the low rate (six per cent) of simulate substitution version. The asterisk not only refers to the CORR simulate type, but all those, simulate types used to replace that particular nominal.
- 2. The underlined nominals in the original story are all used in the fifteen per cent rate of simulate substitution condition. In the six per cent condition only the underlined nominals which are also afterisked are used.

The procedures for generating all levels of all factors are explained in Chapter. 3 (Procedures in the Development of Materials).

The bed, the suit and the pajamas

One night I was in bed. I heard someone come in my room. That someone said: "Do you want to be a real astronaut? Well, hop out of bed, and go out the back door." So I went, with just my pajamas on. Then some words were said, and I whizzed upwards for a long time. At last I saw the man in the moon. He said: "That's a mice roit you have." "Pajamas are not a suit", I said: I saw him how I could get back to earth. Soon, a rocket lander. The astronaut in the rocker said he would take me to my home.

Matrix of Simulate Types to Replace Target Nominals

CORR '	SRVU	SUVR	SUVU	NONE	mx,
might bed someone room	evening couch person place	note beaf sorrow roof	beans ladder lantern snail		beans 1adder roof
*astronaut door *pajamas words	spaceman gate night-shirt symbols	assembly dirt pancakes warts tide	whisky frost charcoal string creek		e assembly gate
time man moon puit	period person satellite garment	mat mouth straw	bag - barn log		bag mouth log eagle
earth Frocket home	land capsule cottage	eagle yibbon hen	stræw best mail		capsule cottage

Comprehension Probes

Explicitly Depend	lent •
1. Soon a	landed.
2. I was in	
3. That's a nice	you have.
4. So I went, wit	h just my on.
5. I heard	•
6. Do you want' to	be a real?
*	•
Inferential	
7. Why did he go	out the back door?
A. He wanted	to be an astronaut
B. He wanted	to work in the garden
· C. He could no	ot sleep

8. Why was he wearing his pajaman?

D. He was looking for his pajamas

Story With Target Nominal

The newspaper, the home,

One day, Russell and his friend Timothy were playing after school. Finally they decided to go home. They walked along the edge of a high wall. Then they jumped over a fence. Then they started walking backwards. Because he couldn't see where he was going.

Bussell bumped into Mr. Zinder's newstand. He knocked his money how off the counter. The money relief the counter. box off the counter. The money rolled all over the road. Mr. Zinder started yelling. He was waving a newspaper wildly in the air. The boys ran off, jumped a nearby fence and went home. Now both boys avoid having to buy a newspaper from Mr. Zinder's newstand.

Matrix of Simulate Types to Replace Target Nominals

CORR	SRVU	SUVR	SUVU ;	NONE	MIX <
day friend school	time playmate class	dam frog scrætch	shop lamp berry		class a
*home adge wall	cabin side ledge barrier	rhorse egg wave: face -	brush / gate dwarf ; shot		ride dwarf
afence angustand box counter	table case, table	nonsense boot cradle	flowers cart pear		flowers case pear mountains
*money road *newspaper	coins strut magazine	mountains, rope neighbor	pig broom		broom
air *boys	sky students	books	pancil rice		students

Comprehension Probes

Explicitly Dependent	<u>.</u>	•	
1. Finally they decided to go	— ;		` .4,
3.) Then they jumped over a	•		•
5. Russell bumped into Mr. Zinder's		_	:
6. The ran off.,			
	V	•	

7. Why did Mr. Zinder start yelling?

- A. He was bitten by an insect.

 B. He was angry at the boys.
- C. His money had been stolen.
- D. Someone tried to jump on him.
- Why, was money rolling all over the road?

Original Story With Target Nomine

Henry lived on the first floor of an apartment house. In front was a Henry lived on the first floor of an apartment house. In front was a big garden. Henry had planted tulip bulbs in the garden. But some were left, so he put them in a basket. He looked up at his building. There were many window boxes on the second floor. He carried the basket upstairs. He knocked on Mrs. Black's door: "Would you like some bulbs?" upstairs. He knocked on Mrs. Black's door: "Would you like some bulbs?" upstairs. He knocked on Mrs. Black's door: "Would you like some bulbs?" she had no window boxes, but said: "I'll put them in pots on the window sill." She even used a tenpot. With lots of water and sun, they grewalls." She even used a tenpot. With lots of water and sun, they grewalls in the pots. First green leaves and then red tulids.

	<i>d</i> :	4- E	Target	Hominels
Matrix of	Simulate Types	to sector		-

2 23.0.			•	•	,
CCRR .	<u> इस्रग</u>	SU.A	<u> </u>	<u> </u>	
bouse bouse boulds bousiet building boxes door rous sill teapot water sun leaves	level catin orchard seeds cfadle house crates gate bowls ledge kettle drops heat petals	flour horse goldfish birds bedroom bullet bones flus slit tomato whistle sour lakes turnels	meal wreck mice custard water custard bill sound beard money custic webs swings		mice & bedroom bullet crates gate gowns ledge
" A74 ne	flowers		•		

Expli	-1	tlv	Deve	ender	1t

- 1. Henry lived on the first 2. He put them in a
- 3. Henry mad plented tulip
- 4. There were many window 5. In front was a big 6. She said: "I'll put them in

- 7. Why did Henry knock on Mrs. Black's door:
 A. To give her some tulip bulbs.

 - B. He wanted her teamot:
 C. He thought she had stolen his tulips.
 D. He had been invited to dinner.
- 8. What helped the tulips to grow.

Story With Target Nominals Underlined

Whike was a bully. He liked to pick on smaller boys. Ofteh hike would wait for kon after school and thist his arm of run off with his books. Finally, Ron decided to fight back. His revardwas a bloody nose, two black eyes, and broken glasses. One day the bully tried to grab Ron's cap. That was his big mistake. Ron made a quick move with his foot and Mike found himself with no cap, lying flat on his back. Mike's mistake was that he did nor know Ron had been learning judo. Mike's reward was a sore.

۰، ۱۰۰	Matrix of Simulate	Types to	Replace Target Nominals	
CORR	SRVU	SUVE.	SUVU NONE	MIX
*bully boys *school srm books oreward nose eyes glasse day,	texts prize face checks	button bowls scarf exe boots ribbon noise eggs grass dash	damage hands fairy wave roads organ glove mugs onions hill	fighter males fairy wave roads prize noise mygs grass
*move foot back	bat	mirror mouse fork bat	dinner gum mail ditch	hat, mirror mouse fork

~	 		71-0		4-07	
	 	TIV	1165	7 E LI	dent	•

- for fighting 1. His
- 2. That was his big
- 3. And Mike found himself lying on his
- 4. Hike was a_
- 5. One day he tried to grab Ron's
- 6. Ron made a quick

- 7. Why did Hike end up on his back?
 - A. He slipped
 - B. He was tripped by a judo move.
 - C. Ron knocked him down.
 - D. He grabbed Ron's cap by mistake.
- 8. How did Ron get two black eyes?

Once there was a king. He lived in an old casale. There was no carpet: The walls were made of scone. It was cold. Sometimes he would wear a blanket. Outside there lived a dragon. Every night he sat in his cave on the hill and roared. The king could not get any sleep. Finally the knights were sent out. But he frightened them all away from the cave, except one. The dragon started crying: "I have no friends." The knight said: "I'll be your friend." Now he lives in the castle. The fire comes but of his nose and keeps everyone wirm.

CORR.	SRYU	SUVR	SUVU NO	ME MIX
ting tcsstle carpet valls stone blanket dragon night tcsve hill	ruler tower- rug fences rock' shawl monster evaning hole mountain	kite carrot cottage vells strav brick doorbell nail case hen	spike peach pony deaks toy needle poster card mug	evening case wool
*knights *friends fire	rest soldiers neighbors heat face	ateps knives frogs file nest	rope socks stoves net feet	rest socks neighbors

Explicitly Dependent

- 1. He sat in his
- 2. Once there was a
- 3. He lived in a big, old
- 4. Pinally, the
- 5. Outside there lived a
- 6. He was crying: "I have no

- 7. Why was the dragon allowed to live in the castl
 A. So the knights could live in the cave.

 - B. To keep the castle warm.
 - C. The king wanted a friend.
 - D. They were frightened of him.
- What did the king want the knights to do about the dragon?

Original Story With Target Nominals Deleted

The fire, the night, and the ghost

Once there was a farmer. He had lots of fine animals on his farm.
But there was a ghost in the house. It would often walk around in
the night and take the sheets off everyone. Sometimes it knocked on
the door. When the sleepy farmer got up, no one was there. Sometimes
it rolled a bottle down the stairs. It made a great noise. One night
the ghost rattled all the pots and scared the animals. It also liked
to blow the smoke back down the chimney. Then no one could light a
fira. The smoke would go everywhere. The fire would go out.

Matrix of Simulate Types to Replace Target Nominals

CORR	SRVU	SUVR	SUVU NONE	HIX
efarmer .	grower	factory	ship C	grower
denimals	livestock '	ankles	ladders	ankles
farm	land	frame .	knife	land
Rhost	demon	glove	rope	rope
house	cabin	hose	river	bose
night.	evening	nest	fig	nest
sheets	cloth	shells	lights	shells
door &	gate	doll .	spot'	gate
bottle	glass	ball	dust	8
etairs	steps	stones	collar	steps
'moise	sound	nose	paint	nose
pots	bowls'	pets	faces	faces
esmoke :	fumes	gnail	guna	1000
chimney	pipe	chicken	forest	forest
*fire	blaze	fish	pie	201237

Comprehension Probes

Explicitly Dependent .	1	٠,		
1. But there was ai	n the	ho	U58.	
2. It also liked to blow the			_back	down
3. It would often walk around	int	he_		•
4. Then no one could light a				
5. He had lots of fine	·	•		
6 Once there was a				

- 7. Why did the farmer get up?
 - A. He heard the ghost.
 - B. He could not sleep.
 - C. He wanted to lock the door.
 - D. He wanted to go down the stairs.
- 8. Why did the ghost roll the bottle down the stairs?



The lever, the planet and the spaceship

The spaceship was about to land on the planet, so the two boys pushed the supply cases toward the escape door. Suddenly the spaceship gave a burst of power. Skip was knocked against the release lever. As Skip fell away from the lever, Glen grabbed Skip's spacesuit, but they were all thrown into space. Glen saw a huge rock hanging in the great emptiness. It was Phobos, one of the planet's moons. "We must reach Phobos while our spacesuits are intact. The case is covered with rubber so it will not shatter. The rubber will cushion our fall."

Matrix of Simulate Type to Replace Target Nominals

CORR	SRVU	SUVR	SUVU /	NONE	MIX
Aspaceship	cylinder	spaghetti	refrigerator		
*planet	star	plant	meeting		plant
boys	youths	bones	fires		
*cases	boxes	castles -	switch-3		castles
door	gate	doll	svan		SUAT.
burst	shot	bunny	money		
power	strength	powder	fish		strength
*lever	control	leader	moment		leader
*spacesuit	cloth	sparrow .	canal	4	canal
space	air	spot	news		air
rock	stone	rice	crumb		cznap
emptiness	hollow	embarrassmen	t sandals		hollow
moons	satellites	mines	streams	4	
*rubber	sponge	river	country		sponge
fall	drop	flea	lace	3	drop

Comprehension Probes

Explicitly Dependent

- 1. It is covered with
- 2. Glen grabbed Skip's ___
- 3. Skip was knocked against the release
- 4. They pushed the supply
- 5. The _____was about to land.
- 6. They were about to land on the

- 7. How did Glen end up in space?
 - A. It was a job he slways wanted..
 - B. He was looking for a huge rock.
 - C. He had tried to save Skip.
 - D. Skip tried to kill Glen by pulling the release lever.
- 8. Why was the case covered withrubber?

The giant, the cave and the sticks

Jack was a poor farmer. He only possessed a few animals on his land. But there was a horrible giant. He lived in an enormous cave up in the hills and when he wanted a meal he would steal the animals. Finally, Jack took a spade with him and dug a deep pit outside the cave. He covered it with sticks, and then he made a loud noise. Soon, the giant ran out, stepped on the sticks, and fell with a tremendous crash. Jack killed him with an axe and now Jack is a hero to all the villagers because he only used a spade and an axe.

Matrix of Simulate Types to Replace Target Nominals

CORR	\ SRVU	SUVR	SUVU	NONE 3	MIX
farmer sanimals land sgiant cave hills meal spade pit	grower livestock ground monster hole mounds feast shovel ditch	fairy apples lake grass cat homes milk shape	rifle matches pants battery fist trays bridge nose sail		matches ground grass fist mounds feast shovel
*sticks noise	twigs.	stitch	pots crab		stitch
*crash	thud	/ cream	√ drug		drug
*axe hero villagers	blade star crowd	ass hero vases	skate spider batter .		star Vases

Comprehension Probes

Explicitly Dependent	
1. Jack killed him with	an
2. He covered it with	·
3. There was a horrible	
4. Jack took a	with him.
5. He lived in an enormo	
6. Be only possessed a f	ew

- 7. Why did Jack dig a pit?
 - A. To find vater.
 - B. To try out his new spade.
 - C. To form a trap.
 - D. To look for sticks.
- 8. Why did Jack kill the giant?

The docks, the boat and the harbor

Michael grew up in a crowded city in America. His family lived in a small house in a narrow street. All around were huge factories with smoking chimneys. It was very noisy because of the big trucks that drove past. When they decided to leave the city and its factories, Michael was only ten years old. Michael enjoyed travelling by boat and was disappointed when they sailed into the harbor. The harbor was surrounded by steep hills. When they landed at the docks, Michael saw many office buildings and varehouses. There were also many trucks on the docks to unload the cargo from the boats.

Matrix of Simulate Types to Replace Target Nominals

CORR SRVU SUVR SUVU *city town cherry kettle family relatives farmer canary	HONE	MIX
family relatives farmer canary	• •	
house cabin horse train street road string thief road string thief bottles house funnels cheeses swings was ages yards saddles harbor bay hammer curtain hills mounds halls rings docks piers dogs whales buildings cabins buttons honey warehouses cargo luggage carrots rocks		cabin thief fairies swings tricks saddles boot bay halls

. Comprehension Probes

- 1. Hichael grew up in a crowded
- Michael enjoyed travelling by
- 3. It was very noisy because of the big
- 4. They sailed into the _
- 5. All around were huge
- 6. When they landed at the

- 7. Why did they leave the city?
 - A. To have fun.
 - B. Because of the factories and noise.
 - C. It was Michael's birthday. D. To go sailing.
- 8. Why did the family hate the smoking chimneys in the city?

The night, the roof and the spot

It was a hot night in the city and Melvin's bedroom was like a hot oven, so he said: "I'm not getting any sleep, so I'll find a nice cool spot." First, Melvin tried sitting near the window sill but no breeze came that way. Next, he tried the roof, but the roof was worse than the window, because it still held the heat of the sun. Finally, Melvin went down to sit on the front steps, where the heat was less intense, although the spot was crowded because all the tenants were outside. Every tenant seemed to have the same idea that night.

Matrix of Simulate Types to Replace Target Nominals

COPER	SRVU	SUVR	SUVU	NONE	MIX
*night city bedroom oven sleep *spot *sill breeze way *roof *heat sun steps *tenants idea	evening town spartment stove rest space edge wind direction calling warmth rays stairs residents thought	hest coat beehive orange slipper spider soap brick wax rope hay star strings termites iron	pan straw hose tvig heel comb mint moon smell spade gallon tent lion parrots tack		town hose stove heel spider edge direction spade hay strings

Comprehension Probes

Ex	plicitly Dependent		
1.	First, Melvin tried sitting near the		
2.	It still held the		
3.	It was a hot	c	•
4.	All the were outside		
5.	Next. he tried thu		
6.	I'll find a nice, cool		

- 7. Why were the steps so crowded?
 - A. The show was about to start.
 - B. It was cool outside.
 - C. The tenants were trying to get in.
 - D. There was a fire inside.
- 8. Why did Melvin's bedroom feel like an oven?

The planes, the look and the voice

Once; while walking through a corn field, I saw a weird object. It caught my eye because it was sparkling in the sunlight. I moved closer to get a look. The huge object was a spaceship. Suddenly, a door began to open, and a ladder was lowered to the ground. Then this strange creature climbed down the ladder. I got a good look at the spacesuit, it was wearing. Then I heard a strange voice: "I am from another planet. I have rum out of fuel. I need fuel to return to my planet. There will be a reward for you." Then the voice stopped.

Matrix of Simulate Types to Replace Target Nominals,

CORR	SRVU	SUVR	SUVU 6	NONE	HIX '9
field *object eye *unlight *clook *spaceship door *ladder ground -creature *spacesuit *voice	park shape view rays glimpse rocket gate step dire thing garment sound	fish orange ess saddle valley spsds 4011 lettuce grin cucumber spider violet	goose chest lump touch stage plant turkey knife cotton blanket design card		park chest egg glimpse plant gate knife cotton thing spider
*planet *fual raward	gas prize	plant felt river	vessels animals city		vessels felt prize

Comprehension Probes

. 0			1
Explicitly Dependent	. ,		٠.
1. "I am from another"	450	".	Ť
2. I saw a weird		- .	
3. I moved closer to get a	_ ~		
4. "I have run out of			_
5. A yas lowered.		-	, .
6. Then I heard a strange.			
***	一,		

- 7. Who spoke to Julie?
 - A. A policeman
 - B. A stranger
 - C. A ladder
 - D. A creature
- 8. How was he able to travel from another planet?

the ranger, and the leaves

The forest ranger stopped. He saw the smoke rising above the trees It was a surface fire. It was burning the leaves on the floor of the forest. Quickly the ranger used his extinguisher. But the leaves were very dry. Soon he was surrounded by a wall of fire, so he sprayed chemicals in a wide circle. Then he scraped a hole in the dirt with a shovel. Then he buried himself in the hole, making sure he could breathe. Later, he climbed out without even a scorched eyebrow. He prealised the chemical had worked, and he touched his eyebrows happily.

Matrix of Simulate Types to Replace Target Nominals

smoks fumes smell wood smell trees logs traps rubber traps #fire blaze fish insect blaze #leaves petale leaks months floor bottom flour pies bottom forest woods frams noses frame extinguisher spray exhaust loads wall fence wave fingers fingers #chemicals poisons cherries railroads poisons circle ring circus lakes lakes #hole ditch hill storm dirt soil door horse shovel rake shell lion	CORR .	SRVU	SUVR SUVR	<u>suvu</u>	NONE	мх
	smoke trees fire leaves floor forest extinguisher wall circle hole dirt shovel	fumes logs blaze petale bottom woods spray fance poisons ring ditch soil	smell traps fish leaks flour frams exhaust wave cherries circus hill door shell	wood tubber insect months pies noses loads fingers railroads lakes storm horse		traps blaze months bottom frame loads fingers poisons

Comprehension Probes

		L .	/ <u>-</u>
EXDLI	citly	Depen	dent

- 1. The forest stopped.,
- 2. He climbed out without even a scorched
- 3. Then he scraped a
- 4. It was a surface
- 5. It was burning the
- 6. So he sprayed

- Inferential 7. Why did the fire spread so fast?
 - A. There was a strong wind.
 - B. The chemicals helped the fire.
 - C. The leaves were very dry.
 - D. The extinguisher was broken.
- Why did the forest ranger carry an extinguisher?